AMENDMENTS TO THE CLAIMS

1.   (CURRENTLY   AMENDED)   A   method   for   decoding   a
bitstream comprising the steps of:

(A)   receiving a first encoded bitstream at an input of
a pre-decoder, wherein said first encoded bitstream ~~comprises~~ is an
intra-only frame picture encoded bitstream comprising a frame
header and alternating macroblock rows, with each macroblock row
containing encoded data for a plurality of vertical lines from a
single respective field;

(B)   generating in said pre-decoder a first field header
and a second field header in response to said frame header of said
first encoded bitstream, wherein said first field header comprises
a copy of said frame header modified to signal a first field
picture and said second field header comprises a copy of said frame
header modified to signal a second field picture;

(C)   storing said first field header and macroblock rows
containing the encoded data for the plurality of vertical lines
from a first field of the frame picture in a first buffer and
storing said second field header and macroblock rows containing the
encoded data for the plurality of vertical lines from a second
field of the frame picture in a second buffer, wherein the encoded
data for the plurality of vertical lines contained in each
macroblock row is a copy of the encoded data for the plurality of

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vertical lines contained in a corresponding macroblock row in the first encoded bitstream; and

25   (D)   generating a second encoded bitstream using said pre-decoder, said second encoded bitstream comprising (i) said first field header, (ii) said macroblock rows containing the encoded data for the plurality of vertical lines from said first field of the frame picture, (iii) said second field header and (iv)

30   said macroblock rows containing the encoded data for the plurality of vertical lines from said second field of the frame picture, wherein said second encoded bitstream ~~comprises~~ is an intra-only field picture encoded bitstream; and

          (E)   presenting said second encoded bitstream to an input

35   of a standard, MPEG-2 compliant decoder, wherein said second encoded bitstream is ~~decodable~~ decoded as two interlaced field pictures ~~using an MPEG-2 compliant decoder~~.

          2.   (PREVIOUSLY PRESENTED) The method according to claim 1, wherein said generating steps further comprise:

          copying said frame header from said first bitstream into a first field header portion of said first buffer and a second

5   field header portion of said second buffer; and

          modifying (i) a portion of said first field header portion to indicate a top field picture and (ii) a portion of said second field header portion to indicate a bottom field picture.

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3.   (PREVIOUSLY PRESENTED) The method according to claim 2, wherein said generating steps further comprise:

copying a plurality of said macroblock rows from said first bitstream to said first buffer and said second buffer, wherein said copying alternates between said first and said second buffers after each macroblock row.

4.   (PREVIOUSLY PRESENTED) The method according to claim 3, wherein said generating steps further comprise:

adjusting a slice number of each macroblock row in said first buffer and said second buffer to increment consecutively.

5.   (PREVIOUSLY PRESENTED) The method according to claim 1, wherein step (D) further comprises:

writing (i) said first field header, (ii) said macroblock rows containing the encoded data for the plurality of vertical lines from said first field of the frame picture, (iii) said second field header and (iv) said macroblock rows containing the encoded data for the plurality of vertical lines from said second field of the frame picture consecutively to said second encoded bitstream.

6.   (PREVIOUSLY PRESENTED) The method according to claim 4, wherein step (D) comprises:

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writing said first buffer followed by said second buffer to said second encoded bitstream.

7.   (CANCELED).

8.   (CANCELED).

9.   (CURRENTLY AMENDED) The method according to claim ~~7~~ 1, further comprising:

decoding said second encoded bitstream into a first decoded field picture and a second decoded field picture; and

5   presenting even field lines on a television monitor in response to said first decoded field picture and odd field lines on said television in response to said second decoded field picture.

10.   (CURRENTLY AMENDED) An apparatus comprising:

means for receiving a first encoded bitstream, wherein said first encoded bitstream ~~comprises~~ is an intra-only frame picture encoded bitstream comprising a frame header and alternating

5   macroblock rows, with each macroblock row containing encoded data for a plurality of vertical lines from a single respective field;

means for generating a first field header and a second field header in response to said frame header of said first encoded bitstream, wherein said first field header comprises a copy of said

10   frame header modified to signal a first field picture and said

      second field header comprises a copy of said frame header modified

      to signal a second field picture;

          means for storing said first field header and macroblock

      rows containing the encoded data for the plurality of vertical

15   lines from a first field of the frame picture in a first buffer and

      storing said second field header and macroblock rows containing the

      encoded data for the plurality of vertical lines from a second

      field of the frame picture in a second buffer, wherein the encoded

      data for the plurality of vertical lines contained in each

20   macroblock row is a copy of the encoded data for the plurality of

      vertical lines contained in a corresponding macroblock row in the

      first encoded bitstream; and

          means for generating a second encoded bitstream

      comprising (i) said first field header, (ii) said macroblock rows

25   containing the encoded data for the plurality of vertical lines

      from said first field of the frame picture, (iii) said second field

      header and (iv) said macroblock rows containing the encoded data

      for the plurality of vertical lines from said second field of the

      frame picture, wherein said second encoded bitstream ~~comprises~~ is

30   an intra-only field picture encoded bitstream; and

          <u>means for decoding said second encoded bitstream</u> ~~is~~

      ~~decodable~~ as <u>two</u> interlaced field pictures ~~using an~~ <u>comprising a</u>

      <u>standard,</u> MPEG-2 compliant decoder.

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11. (CURRENTLY AMENDED) An apparatus comprising:

a first circuit configured to

(i) receive a first encoded bitstream, wherein said first encoded bitstream ~~comprises~~ is an intra-only frame picture encoded bitstream comprising a frame header and alternating macroblock rows, with each macroblock row containing encoded data for a plurality of vertical lines from a single respective field,

(ii) generate a first field header and a second field header in response to said frame header of said first encoded bitstream, wherein said first field header comprises a copy of said frame header modified to signal a first field picture and said second field header comprises a copy of said frame header modified to signal a second field picture;

(iii) store said first field header and macroblock rows containing the encoded data for the plurality of vertical lines from a first field of the frame picture in a first field buffer and store said second field header and macroblock rows containing the encoded data for the plurality of vertical lines from a second field of the frame picture in a second field buffer, wherein the encoded data for the plurality of vertical lines contained in each macroblock row is a copy of the encoded data for the plurality of vertical lines contained in a corresponding macroblock row in the first encoded bitstream, and

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(iv) generate a second encoded bitstream comprising

25　(a) said first field header, (b) said macroblock rows containing the encoded data for the plurality of vertical lines from said first field of the frame picture, (c) said second field header and (d) said macroblock rows containing the encoded data for the plurality of vertical lines from said second field of the frame

30　picture, wherein said second encoded bitstream ~~comprises~~ <u>is</u> an intra-only field picture encoded bitstream<u>;</u> and

<u>a second circuit configured to decode said second encoded bitstream</u> ~~is decodable~~ as <u>two</u> interlaced field pictures<u>, wherein said second circuit comprises a standard,</u> ~~using an~~ MPEG-2 compliant

35　decoder.

12.　(CURRENTLY AMENDED) The apparatus according to claim 11, wherein said <u>first</u> circuit comprises:

one or more memory devices containing said first field buffer and said second field buffer;

5　an output circuit coupled to said one or more memory devices and generating said second encoded bitstream; and

a transform circuit coupled to said one or more memory devices and said output circuit, and configured to (i) copy said frame header from said first encoded bitstream into a first field

10　header portion of said first field buffer and a second field header portion of said second field buffer.

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13. (ORIGINAL) The apparatus according to claim 12, wherein said transform circuit is further configured to:

modify (i) a portion of said first field header portion to indicate a top field picture and (ii) a portion of said second field header portion to indicate a bottom field picture.

14. (PREVIOUSLY PRESENTED) The apparatus according to claim 12, wherein said transform circuit is further configured to:

copy a plurality of said macroblock rows from said first encoded bitstream to said first field buffer and said second field buffer, wherein said copying alternates between said first and said second field buffers after each macroblock row.

15. (PREVIOUSLY PRESENTED) The apparatus according to claim 14, wherein said transform circuit is further configured to:

adjust a slice number of each macroblock row in said first field buffer and said second field buffer to increment consecutively.

16. (PREVIOUSLY PRESENTED) The apparatus according to claim 12, wherein said transform circuit is further configured to:

write the contents of said first field buffer and the contents of said second field buffer consecutively to said second

5   encoded bitstream.

17.   (CANCELED).

18.   (CANCELED).

19.   (CURRENTLY AMENDED) The apparatus according to claim ~~17~~ 11, wherein said ~~video decoder~~ second circuit is further configured to:

decode said second encoded bitstream into a first decoded

5   field picture and a second decoded field picture; and

present even field lines on a television monitor in response to said first decoded field picture and odd field lines on said television in response to said second decoded field picture.

20.   (CURRENTLY AMENDED) The apparatus according to claim 11, wherein said first encoded bitstream ~~comprises~~ is an intra-only MPEG-2 frame picture stream <u>and said second encoded bitstream is an intra-only MPEG-2 field picture stream</u>.

21.   (PREVIOUSLY PRESENTED) The apparatus according to claim 16, wherein said transform circuit is further configured to:

write sequence-related information from said first encoded bitstream directly to said second encoded bitstream.

22. (PREVIOUSLY PRESENTED) The apparatus according to claim 21, wherein said transform circuit modifies one or more portions of sequence-related headers from said first encoded bitstream prior to output in said second encoded bitstream.